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FILE 'BIOSIS' ENTERED AT 10:18:35 ON 15 JAN 2004  
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=> s helicoverpa armigera stunt virus or hasv  
L1 58 HELICOVERPA ARMIGERA STUNT VIRUS OR HASV

=> s helicoverpa armigera stunt virus  
L2 24 HELICOVERPA ARMIGERA STUNT VIRUS

=> dup rem l1  
PROCESSING COMPLETED FOR L1  
L3 34 DUP REM L1 (24 DUPLICATES REMOVED)

=> d 1-10 ti

L3 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Retroviral vectors with improved safety for gene therapy blocked from recombination by internal base pairing in transcripts

L3 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
TI Modulation of Homo- and Heterodimerization of Harvey Sarcoma Virus RNA by GACG Tetraloops and Point Mutations in Palindromic Sequences

L3 ANSWER 3 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 2  
TI Infection of its lepidopteran host by the **Helicoverpa armigera stunt virus** (Tetraviridae).

L3 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN  
TI **Heliothis armigera stunt virus** and its uses in protecting plants by genetic engineering

L3 ANSWER 5 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 3  
TI Analysis of the capsid processing strategy of *Thosea asigna* virus using baculovirus expression of virus-like particles.

L3 ANSWER 6 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
TI Pathology and properties of the tetravirus **Helicoverpa armigera stunt virus**.

L3 ANSWER 7 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN  
TI Pathology and properties of the tetravirus **Helicoverpa armigera stunt virus**.

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of America. It contains copyrighted materials. All rights reserved.  
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DUPLICATE 4

TI Replication-independent assembly of an insect virus (Tetraviridae) in plant cells.

L3 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

TI Reverse transcription of a naturally occurring nonretroviral RNA produces a precise deletion in the majority of its cDNA products

L3 ANSWER 10 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.  
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DUPLICATE 6

TI The specificity of **Helicoverpa armigera stunt virus** infectivity.

=> d 3 ab

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DUPLICATE 2

AB Techniques of microscopy and histopathology were employed to study the positive-sense, single-stranded RNA virus, the **Helicoverpa armigera stunt virus (HaSV; omegatetravirus, Tetraviridae)** infecting its caterpillar host. Infection of the virus per os during the first three instars of larval development is virulent and leads to rapid stunting and mortality. In contrast, no detectable symptoms occur in later larval development, signifying a high degree of developmental resistance. A quantitative study of cell populations in the host midgut during this time showed that increased cell numbers during development alone could not account for the increase in resistance. **HaSV** infection was restricted to the midgut and three of its four cell types. In younger larvae, the virus initiated its infection in closely situated foci that appeared to expand to link with others to cover larger areas of the midgut. The midgut cells of the infected larvae responded with an increased rate of sloughing to an extent rendering the midgut incapable of maintenance or recovery of normal function. In contrast, infection of older larvae by **HaSV** did not lead to overt pathology although foci of **HaSV** infection were detected in their midguts. However, the foci were more sparsely situated, failed to expand, and eventually disappeared, presumably due to cell sloughing. These observations indicate that cell sloughing is an immune response existing throughout larval development but midguts of older larvae have an additional mechanism to account for the increased resistance. This second mechanism results in midgut cells becoming more refractory to infection and, combined with cell sloughing, allows the midguts of older larvae to recover more readily from **HaSV** infection. These two mechanisms are similar to those seen with host responses to baculoviruses, which display developmental resistance to a lesser degree against more general infections. **HaSV** remaining in the midgut appears to amplify the degree of developmental resistance.

=> d 4 ab

L3 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

AB The present invention relates to an isolated small RNA virus capable of infecting insect species including *Heliothis* species, and to the nucleotide sequences and proteins encoded thereby. The invention contemplates uses of the virus in controlling insect attack in plants. **Helicoverpa armigera stunt virus (HaSV)** was characterized and used as an isolated small RNA virus

capable of controlling insect attack (including *Heliothis* species) in plants via various genetically engineered preps., variants, or derivs. **HaSV** contained 2 RNA species, whose nucleotide sequences consisted of 5312 and 2478 nucleotides; RNA 2 also existed as a variant with an addnl. C residue at position 570. RNA 1 coded for the 1750-amino-acid RNA replicase (mol. wt. 187 kDa) as well as 3 smaller proteins (P11a, P11b, P14) coded on its 3'-terminal region. RNA 2 coded for P17 and the capsid protein precursor (P71) which is proteolytically cleaved to form 7200-mol.-wt. and 64,000-mol.-wt. mature capsid proteins. Viral infection activates or facilitates pathogenesis of an unrelated virus and these 2 agents act synergistically in causing larval gut cell disruption; the virus, its expressed RNAs, and its proteins were bioassayed on larva. PCR primers designed for specific regions of the **HaSV** genome were used to construct full-length RNA 1 and 2 clones for cloning and expression as well as clones expressing P64 and P7 capsid proteins, P70 (the RNA 2 variant capsid precursor), P71, and P17. In addn. to cloning in bacterial (*Escherichia coli*) systems, expression of **HaSV** products was achieved with baculovirus vectors in insect cells (*Spodoptera frugiperda* Sf9) as hosts. Northern blotting also confirmed that RNA electroporation into various plant protoplasts leads to RNA replication and expression of capsid proteins. Various ribozyme oligonucleotides were synthesized in order to get efficient replication, translation, or encapsidation of the RNA by excising structures downstream of the tRNA-like structures. Engineered forms of the virus are described in which a foreign, reporter, or insect toxin gene is inserted in place of the 5'-terminal portion of the RNA replicase gene such that encapsidation signals and the initiation codon are used to commence gene translation. Addnl., the capsid protein can be fused to an insecticidal protein toxin (ricin A or diphtheria toxin) to form a capsovector which protects the toxin from inactivation by insect gut.

=> d 4 pi

L3	ANSWER 4 OF 34	CAPLUS	COPYRIGHT 2004	ACS on STN		
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 6177075	B1	20010123	US 1995-485355	19950607	
	US 2003041349	A1	20030227	US 2001-991262	20011120	

=> d 5 ab

L3 ANSWER 5 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 3

AB *Thosea asigna* virus (TaV), a putative member of the genus Betatetravirus of the family Tetraviridae, is predicted to have a novel capsid expression strategy compared with other characterized tetraviruses. The capsid precursor protein is cleaved twice to generate three proteins. Two of the proteins, L (58.3 kDa) and S (6.8 kDa), are incorporated into the TaV virion. The third, non-structural protein, produced from the N terminus of the precursor protein, is up to 17 kDa in size and is of unknown function. The TaV capsid precursor protein sequence without the 17 kDa N-terminal region was modelled against the solved structure from *Nudaurelia omega* virus (NomegaV) using SwissModel. The TaV model was very similar to the solved structure determined for subunit A of NomegaV and had features that are conserved between tetraviruses and nodaviruses, including the positioning of the cleavage site between the L and S capsid proteins. The production of virus-like particles (VLPs) using the baculovirus expression system was used to analyse the capsid processing strategy employed by TaV. VLPs were formed in both the presence and absence of the 17 kDa N-terminal region of the capsid precursor. VLPs were not formed when the L and S

regions were expressed from separate promoters, indicating that cleavage between the L and S capsid proteins was an essential part of TaV capsid assembly. Expression of the TaV 17 kDa protein in bacteria did not produce intracellular tubules similar to those formed by bacterial expression of the p17 protein from **Helicoverpa armigera stunt virus**.

=> d 7 ab

L3 ANSWER 7 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.  
(2004) on STN

AB A quantitative study of the pathogenicity of **Helicoverpa armigera stunt virus (HaSV)** (Tetraviridae) isolates toward larvae of several heliothine species was conducted along with studies on the stability of the virus to a variety of chemical, enzymic, and temperature treatments. Surface contamination bioassays of several **HaSV** isolates against *H. armigera* produced 50% effective concentration (EC50) estimates ranging between 568 and 9244 virus particles (vp)/mm<sup>2</sup>. Against mid 1st instar larvae of *H. armigera*, *H. punctigera*, and *Heliothis punctifera*, EC50 estimates for one isolate were 1288, 16,137, and 2667 vp/mm<sup>2</sup>, respectively. The virulence of **HaSV** infection varied markedly with the age at which larvae were exposed to the virus. Presentation of the virus to the first three instars of *H. armigera* was accompanied by cessation of feeding, growth retardation, and eventual lethality, whereas no adverse effects were observed when later instars were exposed to the virus, even at very high concentrations. Active **HaSV** was recovered from frass of larvae exposed to the virus as 1st instars. Household bleach (1% v/v; 0.04% w/v available chlorine, 0.004% w/v NaOH), formaldehyde (1% w/v), and temperatures > or = 65 degrees C completely inactivated **HaSV** in suspension. Treatments with ether, proteinase K (1 mg/ml), *H. armigera* gut contents, and temperatures between 22 and 55 degrees C partially inactivated virus activity. No observable inactivation was observed after treatment with chloroform, chymotrypsin (1 mg/ml), trypsin (1 mg/ml), or RNase A (1 mg/ml). The virus was stable between pH 2.8 and pH 10.0 with around 60% loss of activity observed at pH 11.4. The pattern of pathogenic effects seen in several other insect species challenged by high concentrations of **HaSV** indicated that the host range of the virus is limited to species within the lepidopteran family Noctuidae. The apparently restricted host range of **HaSV** along with a number of other features indicate that this virus has considerable potential for the development of novel control agents for use against heliothine pests.

=> d 8 ab

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(2004) on STN DUPLICATE 4

=> d 8 so

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(2004) on STN DUPLICATE 4

SO Virology, Sept 15, 2001. Vol. 288, No. 1. p. 36-50  
Publisher: Orlando, Fla. : Academic Press.  
CODEN: VIRLAX; ISSN: 0042-6822

=> d 10 ab

L3 ANSWER 10 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 6

AB **Helicoverpa armigera stunt virus** (**HaSV**) is a member of the Tetraviridae family of RNA viruses whose replication and expression strategies are not well understood due to the absence of an in vitro cell culture system. We set out to find such a system for **HaSV** by screening an array of 13 insect and 1 mammalian cell culture lines with both virus particle infection and genomic RNA transfection. No cell line was found to be permissive for replication, although entry of genomic RNA was verified. The apparent specificity of this virus for its in vivo midgut target site was strongly corroborated by studies involving Northern blots of RNA extracted from infected insects. Only larval midgut RNA showed the presence of virus after hosts were infected per os or by injection which exposed other host cell types to the virus. The absence of replication in cell culture was due to a lack, or presence, of host factors important to replicase activity and also the likely absence of virus particle binding and entry. We thus provide both in vitro- and in vivo-based evidence demonstrating that this virus is extremely specific in the type of cells in which it will initiate an infection.

=> d 10 so

L3 ANSWER 10 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 6

SO Journal of invertebrate pathology, Sept 1999. Vol. 74, No. 2. p. 156-163  
Publisher: Orlando, Fla. : Academic Press.  
CODEN: JIVPAZ; ISSN: 0022-2011

=> d 10 au

L3 ANSWER 10 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 6

AU Bawden, A.L.; Gordon, K.H.J.; Hanzlik, T.N.

=> d 11-20 ti

L3 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

TI Sequence of the Genomic RNA of Nudaurelia .beta. Virus (Tetraviridae)  
Defines a Novel Virus Genome Organization

L3 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

TI Altering the cell tropism of small RNA viruses and virus-like particles by introduction of immunoglobulin-like domains into the p71 coat protein

L3 ANSWER 13 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI Cell-matrix interactions of normal and transformed human keratinocytes in vitro are modulated by the synthetic phospholipid analogue hexadecylphosphocholine.

L3 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8

- TI Multiple regions of Harvey sarcoma virus RNA can dimerize in vitro
- L3 ANSWER 15 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 9
- TI Sequence of RNA2 of the **Helicoverpa armigera stunt virus** (Tetraviridae) and bacterial expression of its genes.
- L3 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 10
- TI Properties of the carcinoma-associated antigen MH 99/KS 1/4 in normal and transformed human keratinocytes: regulation of synthesis, molecular crosslinking and ultrastructural localization
- L3 ANSWER 17 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 11
- TI The larger genomic RNA of *Helicoverpa armigera* stunt tetravirus encodes the viral RNA polymerase and has a novel 3'-terminal tRNA-like structure.
- L3 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
- TI Insect viruses and their uses in protecting plants
- L3 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 12
- TI Carcinoma-associated 38-kD membrane glycoprotein MH 99/KS 1/4 is related to proliferation and age of transformed epithelial cell lines
- L3 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13
- TI Anoxia-inducible rat VL30 elements and their relationship to ras-containing sarcoma viruses

=> d 12 ab

- L3 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
- AB The p71 coat proteins of small RNA viruses of insects (Tetraviridae) have a core segment with the structure of a member of the Ig superfamily that is responsible for binding to the insect midgut. The cell tropism of these viruses can therefore be altered by introducing altered Ig-like domains or other substituted tertiary structures into this core domain. Proteins of up to 30 kilodaltons can be substituted for this domain. Virus, or virus-like particles derived from, it with modified cell tropism can be used as delivery vehicles in insecticidal and medical applications. In addn., the coat protein can be modified to minimize antigenicity for therapeutic use. The Ig-like structure could be exchanged for a minimal loop (the peptide SGSGS) without affecting particle formation and RNA packaging.

=> d 15 ab

- L3 ANSWER 15 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 9
- AB The complete nucleotide sequence of RNA2 of **Helicoverpa armigera stunt virus (HaSV)**, a member of the Tetraviridae, was determined by characterization of cloned cDNA and PCR products and direct sequencing of genomic RNA. The capped, positive sense, single-stranded RNA is 2478 nucleotides in length and has two overlapping open reading frames (ORFs) likely to be cistrons which are situated between terminal non-coding regions of 282 and 168 bases, 5' and

3', respectively. Extensive secondary structure of the RNA strand is indicated, including a tRNA-like structure at the 3' terminus which is the first such structure discerned in an animal virus. The first ORF encodes a 17 kDa PEST protein (p17) of unknown function while the second ORF encodes the 71 kDa coat protein precursor (p71) that is cleaved at an Asn-Phe site into the 64 kDa and 7 kDa coat proteins. The precursor coat protein is 66% identical to that of another tetra virus, the Nudaurelia omega virus, with most of the difference residing in a 165 amino acid region located in the middle of the sequence. Despite the extensive similarity, no serological relationship was observed between the two viruses, suggesting that the dissimilar region is exposed on the capsid exterior. Expression in bacteria of the two RNA2 gene products shows they are likely to be expressed by a leaky scan-through mechanism. Bacterial expression of p71 did not produce virus-like particles while expression of p17 produced large arrays of mostly hollow, hexagonal tube-like structures.

=> d 15 so

- L3 ANSWER 15 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 9
- S0 The Journal of general virology, Apr 1995. Vol. 76, No. pt.4. p. 799-811  
 Publisher: Reading : Society for General Microbiology.  
 CODEN: JGVIAY; ISSN: 0022-1317

=> d 18 ab

- L3 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
- AB **Helicoverpa armigera stunt virus (HaSV)** was characterized and used as an isolated small RNA virus capable of controlling insect attack (including *Heliothis* species) in plants via various genetically engineered preps., variants, or derivs. **HaSV** contained 2 RNA species, whose nucleotide sequences consisted of 5312 and 2478 nucleotides; RNA 2 also existed as a variant with an addnl. C residue at position 570. RNA 1 coded for the 1750-amino-acid RNA replicase (mol. wt. 187 kDa) as well as 3 smaller proteins (P11a, P11b, P14) coded on its 3'-terminal region. RNA 2 coded for P17 and the capsid protein precursor (P71) which is proteolytically cleaved to form 7200-mol.-wt. and 64,000-mol.-wt. mature capsid proteins. Viral infection activates or facilitates pathogenesis of an unrelated virus and these 2 agents act synergistically in causing larval gut cell disruption; the virus, its expressed RNAs, and its proteins were bioassayed on larva. PCR primers designed for specific regions of the **HaSV** genome were used to construct full-length RNA 1 and 2 clones for cloning and expression as well as clones expressing P64 and P7 capsid proteins, P70 (the RNA 2 variant capsid precursor), P71, and P17. In addn. to cloning in bacterial (*Escherichia coli*) systems, expression of **HaSV** products was achieved with baculovirus vectors in insect cells (*Spodoptera frugiperda* Sf9) as hosts. Northern blotting also confirmed that RNA electroporation into various plant protoplasts leads to RNA replication and expression of capsid proteins. Various ribozyme oligonucleotides were synthesized in order to get efficient replication, translation, or encapsidation of the RNA by excising structures downstream of the tRNA-like structures. Engineered forms of the virus are described in which a foreign, reporter, or insect toxin gene is inserted in place of the 5'-terminal portion of the RNA replicase gene such that encapsidation signals and the initiation codon are used to commence gene translation.

=> d 18 pi



L3	ANSWER 18 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----				
PI	WO 9404660	A1	19940303	WO 1993-AU411	19930813
	W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW				
	AU 678982	B2	19970619	AU 1993-46912	19930813
	AU 9346912	A1	19940315		
	EP 786003	A1	19970730	EP 1993-917448	19930813
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	BR 9306907	A	19981208	BR 1993-6907	19930813
	US 2003041349	A1	20030227	US 2001-991262	20011120

=> d 17 ab

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AB In this paper we report the complete nucleotide sequence of the larger segment (5312 nucleotides) of the bipartite RNA genome of *Helicoverpa armigera* stunt tetravirus (**HaSV**). **HaSV** therefore becomes the first member of the Tetraviridae, a virus family with a host range restricted to lepidopteran insects, whose genome has been completely sequenced. **HaSV** RNA 1 encodes a 187K protein which includes three domains conserved in RNA-dependent RNA polymerases of RNA viruses in the alpha-like superfamily. Analysis of the replicase sequence confirms the status of the Tetraviridae as a distinct family within this superfamily, which includes animal, plant, and insect viruses, and shows the least-distantly related replicase for all three domains to be that of the hepatitis E virus. Another feature of the nonpolyadenylated **HaSV** genomic RNAs is a well-conserved 3'-terminal tRNA-like structure, the first such structure discerned in an animal virus. However, in contrast to the tRNA-like structures on some plant virus RNAs, the **HaSV** structure, which has a valine anticodon (CAU), appears to form without a pseudoknot and therefore resembles authentic tRNA(Val) more closely than do the plant viral structures. The implications of these observations for our understanding of RNA virus evolution are discussed.

=> d 17 so

L3 ANSWER 17 OF 34 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2004) on STN DUPLICATE 11

SO Virology, Apr 1, 1995. Vol. 208, No. 1. p. 84-98. Publisher: Orlando, Fla. : Academic Press. CODEN: VIRLAX; ISSN: 0042-6822

=> d 21-30 ti

L3 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

TI A novel small RNA virus isolated from the cotton bollworm, *Helicoverpa armigera*

L3 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 14

TI Different levels of v-Ha-ras p21 expression in primary keratinocytes transformed with Harvey sarcoma virus correlate with benign versus malignant behavior

L3 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 15

TI Evidence that retroviral transduction is mediated by DNA, not by RNA

L3 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 16

TI Ras induced lesions in a heterotopic mouse bladder

L3 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 17

TI Similar and synergistic inhibition of gap-junctional communication by ras transformation and tumor promoter treatment of mouse primary keratinocytes

L3 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

TI The ras genes transform without mutant codons and are possibly activated by truncation of a newly defined ras exon

L3 ANSWER 27 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI MALIGNANT TRANSFORMATION OF IMMORTALIZED HUMAN SKIN KERATINOCYTES BY RAS-ONCOGENE TRANSFECTION.

L3 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 18

TI The expression of integrated plasmid DNA depends on copy number

L3 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 19

TI Immunocytochemical localization of RasHa p21 in normal and neoplastic cells in fixed tissue sections from Harvey sarcoma virus-infected mice

L3 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 20

TI Infection of immune mast cells by Harvey sarcoma virus: immortalization without loss of requirement for interleukin-3

=> d 31-34 ti

L3 ANSWER 31 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI SHARED INTERSPECIES ANTIGENIC REACTIVITIES AMONG HAMSTER AND FELINE ONCOVIRUSES.

L3 ANSWER 32 OF 34 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

TI INTERACTION OF GLYCERALDEHYDE 3 PHOSPHATE DEHYDROGENASE WITH DNA.

L3 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

TI Heteroduplex analysis of the sequence relationships between the genomes of Kirsten and Harvey sarcoma viruses, their respective parental murine leukemia viruses, and the rat endogenous 30S RNA

L3 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

TI Theta particles. Structure found in hamster sarcoma virus

=> d 21 ab

L3 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

AB A small RNA virus with novel characteristics has been isolated from lab.-bred larvae of *Helicoverpa armigera*. Infection by the *H. armigera* stunt virus causes severe retardation of larval development and subsequent death. Its particles are isometric, 38 nm in diam., and have a buoyant d. of 1.296 g/mL in cesium chloride. The viral capsid has two major nonglycosylated protein components with *M<sub>r</sub>*s of 65,000 and 6000, and contains a genome composed of two nonpolyadenylated single-stranded RNA mols. with lengths of 2.4 kb and 5.5 kb. The 5' termini of these RNAs are capped; their 3' termini are unblocked. In vitro translations of the viral RNAs showed synthesis of large proteins of sizes near the max. coding capacity of each strand along with synthesis of numerous smaller proteins; no evidence for processing of precursors was seen. The physicochem. properties of the virus are most similar to those of the *Nudaurelia .omega.* virus, a provisional member of the Tetraviridae,

although no antigenic relationship was obsd. between the two viruses. The bipartite genome and distinct capsid structure of these two viruses indicate the existence of a previously unrecognized virus group.

=> d 21 so

L3 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN  
S0 Journal of General Virology (1993), 74(9), 1805-10  
CODEN: JGVIAY; ISSN: 0022-1317